

FIG. 1

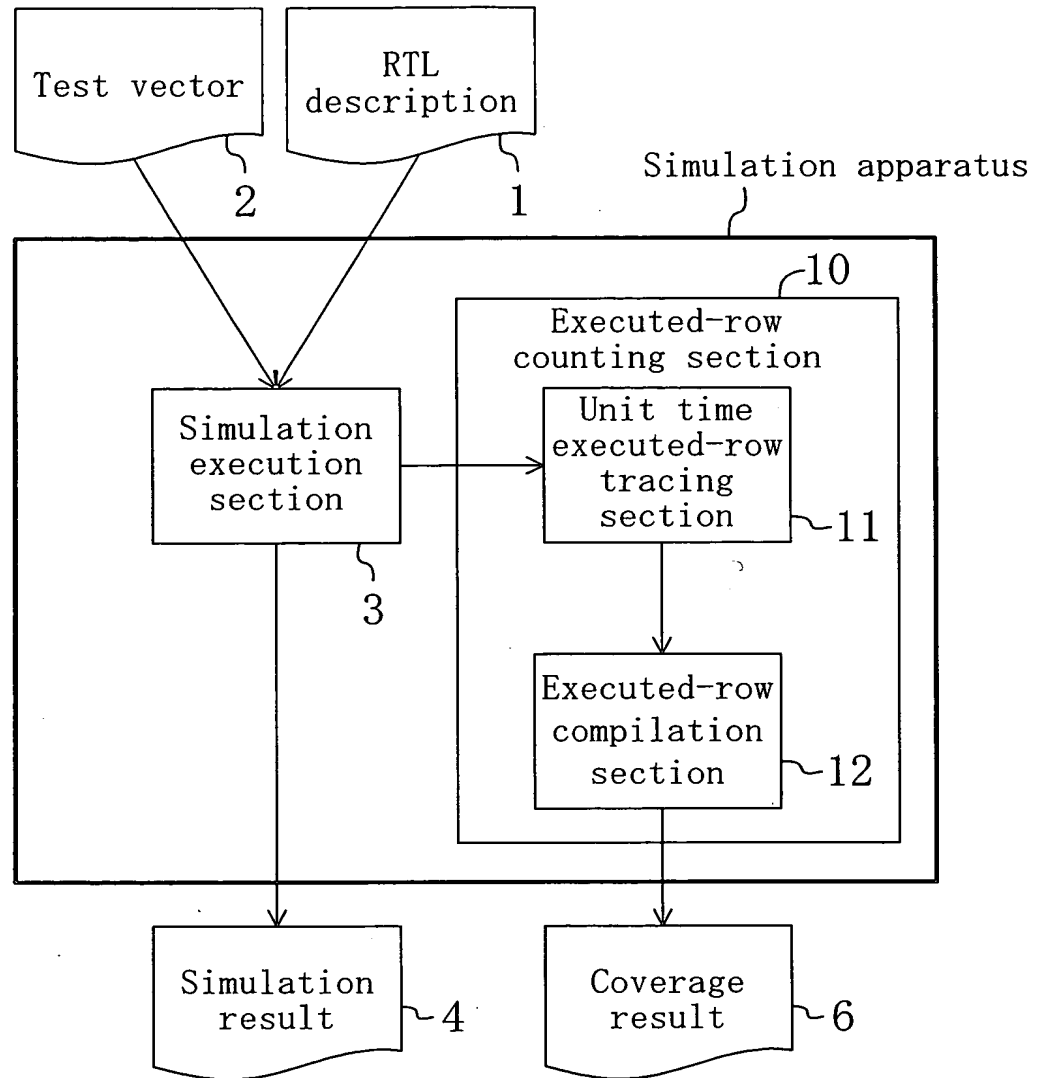


FIG. 2

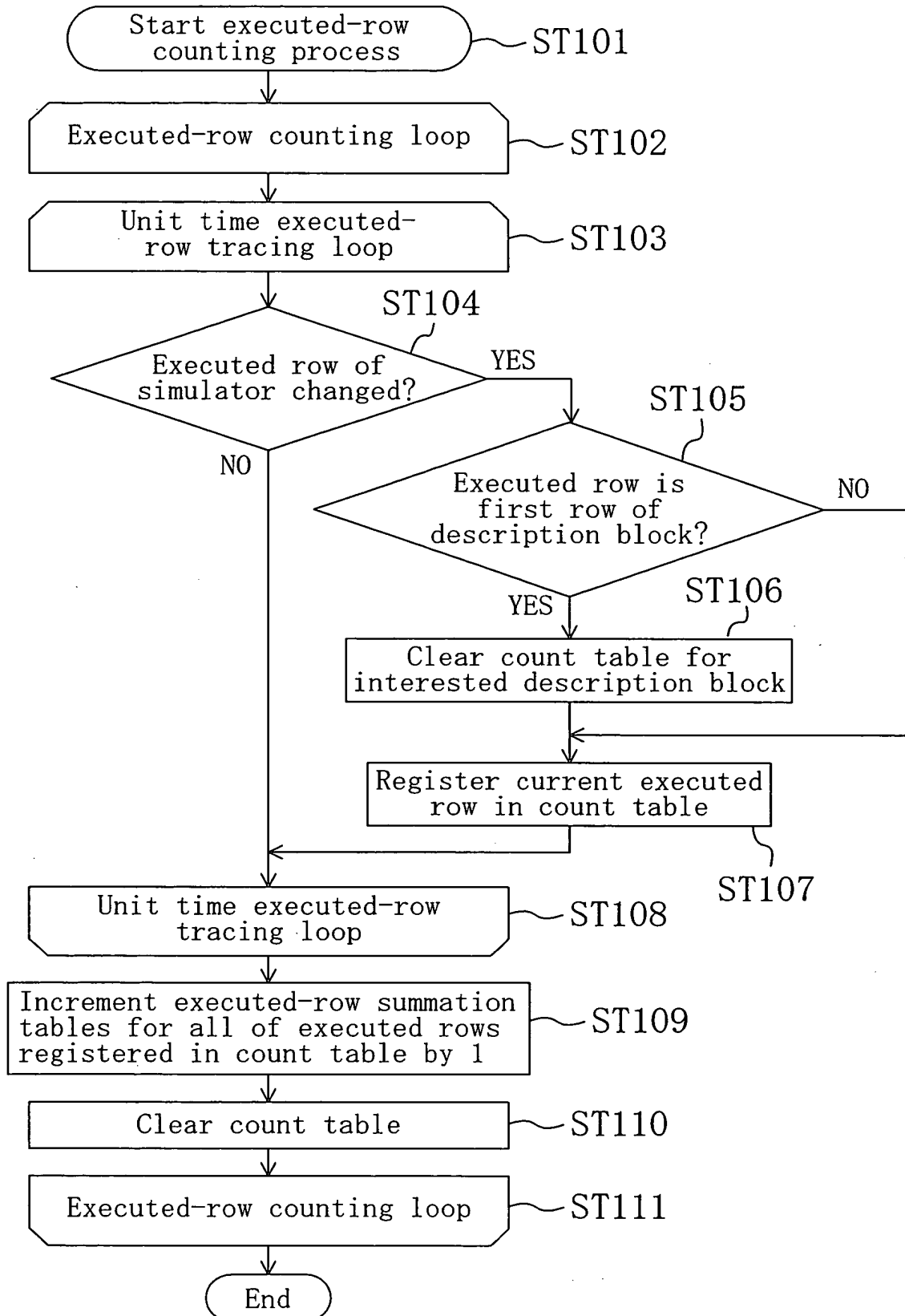


FIG. 3A

1

```
100:    always @ (a or b or c) begin
101:        case({a, b, c})
102:            3' b000:out=0;
103:            3' b001:out=0;
104:            3' b010:out=0;
105:            3' b011:out=0;
106:            3' b100:out=0;
107:            3' b101:out=1;
108:            3' b110:out=1;
109:            3' b111:out=1;
110:        endcase
111:    end
112:
113:    always @ (a) begin
114:        c=~a;
115:    end
```

FIG. 3B

2

```
200:    initial begin
201:        #0      a=0; b=0;
202:        #100    a=1;
203:    end
```

FIG. 4

6

Number of
times of
execution

```
2 100: always @ (a or b or c) begin
2 101:     case({a, b, c})
    102:         3' b000:out=0;
1 103:         3' b001:out=0;
    104:         3' b010:out=0;
    105:         3' b011:out=0;
1 106:         3' b100:out=0;
    107:         3' b101:out=1;
    108:         3' b110:out=1;
    109:         3' b111:out=1;
    110:     endcase
    111: end
    112:
2 113: always @ (a) begin
2 114:     c=~a;
    115: end
```

FIG. 5

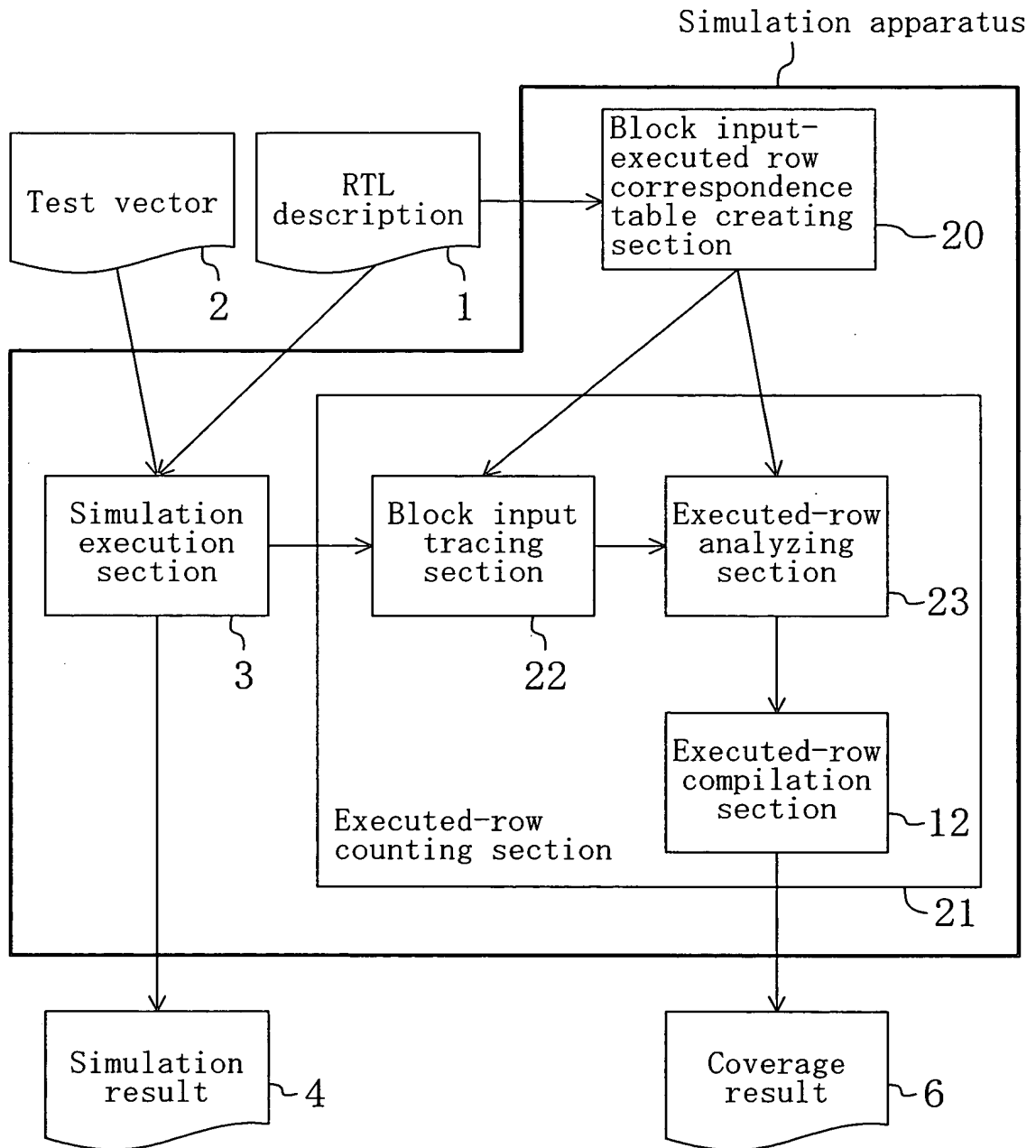


FIG. 6

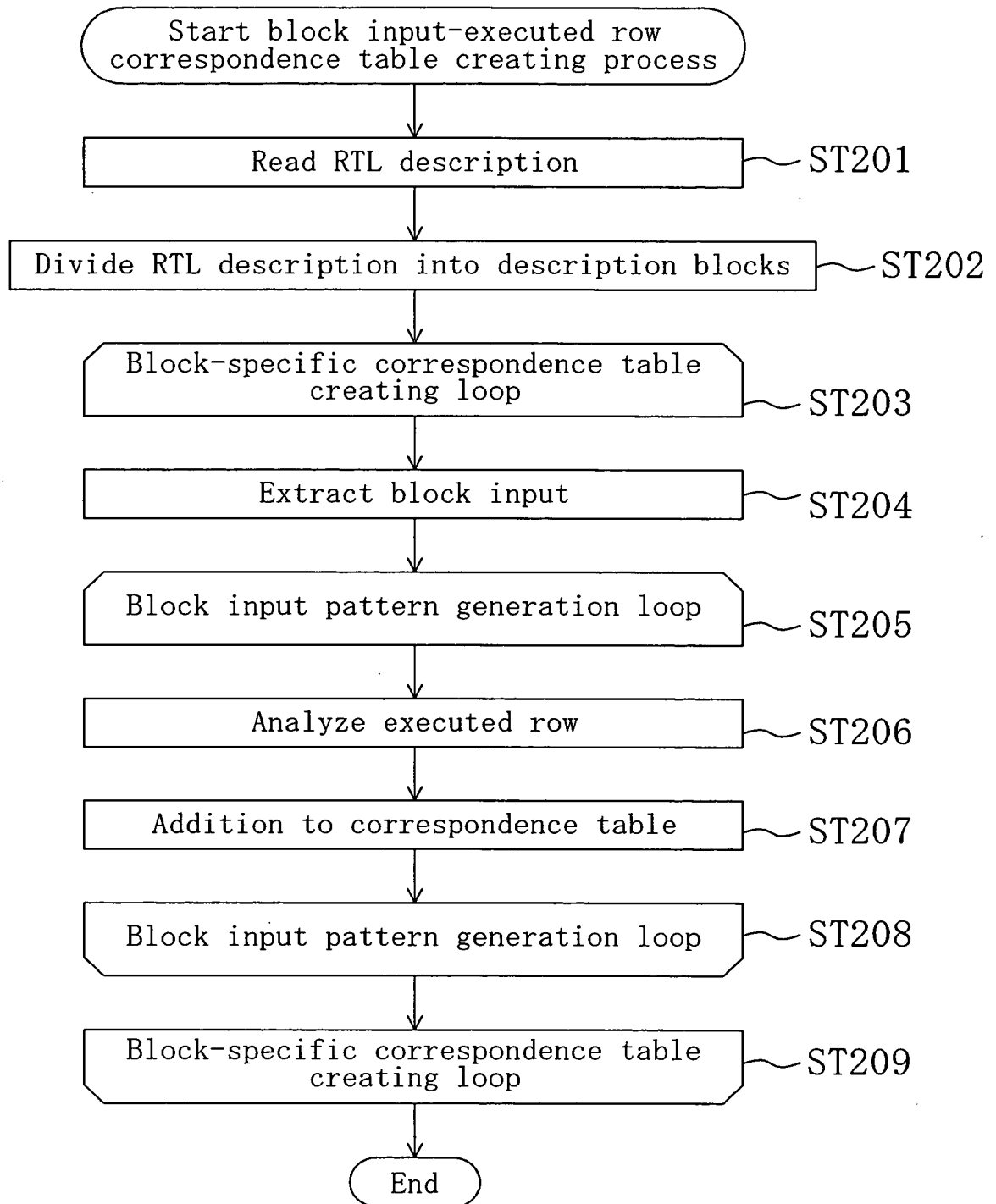


FIG. 7

Description block of 100th to 110th rows	
abc	Executed rows
000	100, 101, 102
001	100, 101, 103
010	100, 101, 104
011	100, 101, 105
100	100, 101, 106
101	100, 101, 107
110	100, 101, 108
111	100, 101, 109

Description block of 113th to 115th rows	
a	Executed rows
0	113, 114
1	113, 114

FIG. 8

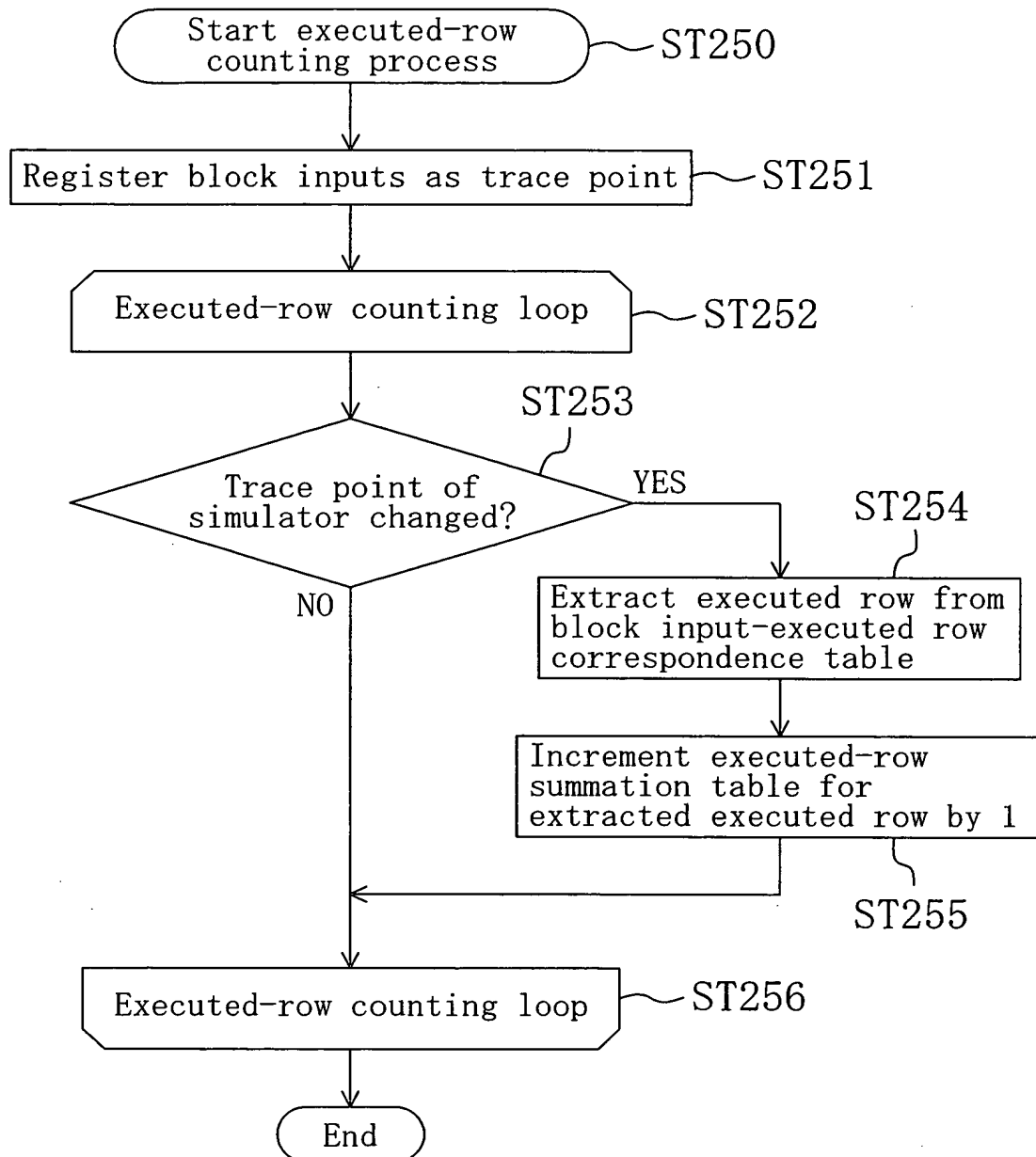


FIG. 9

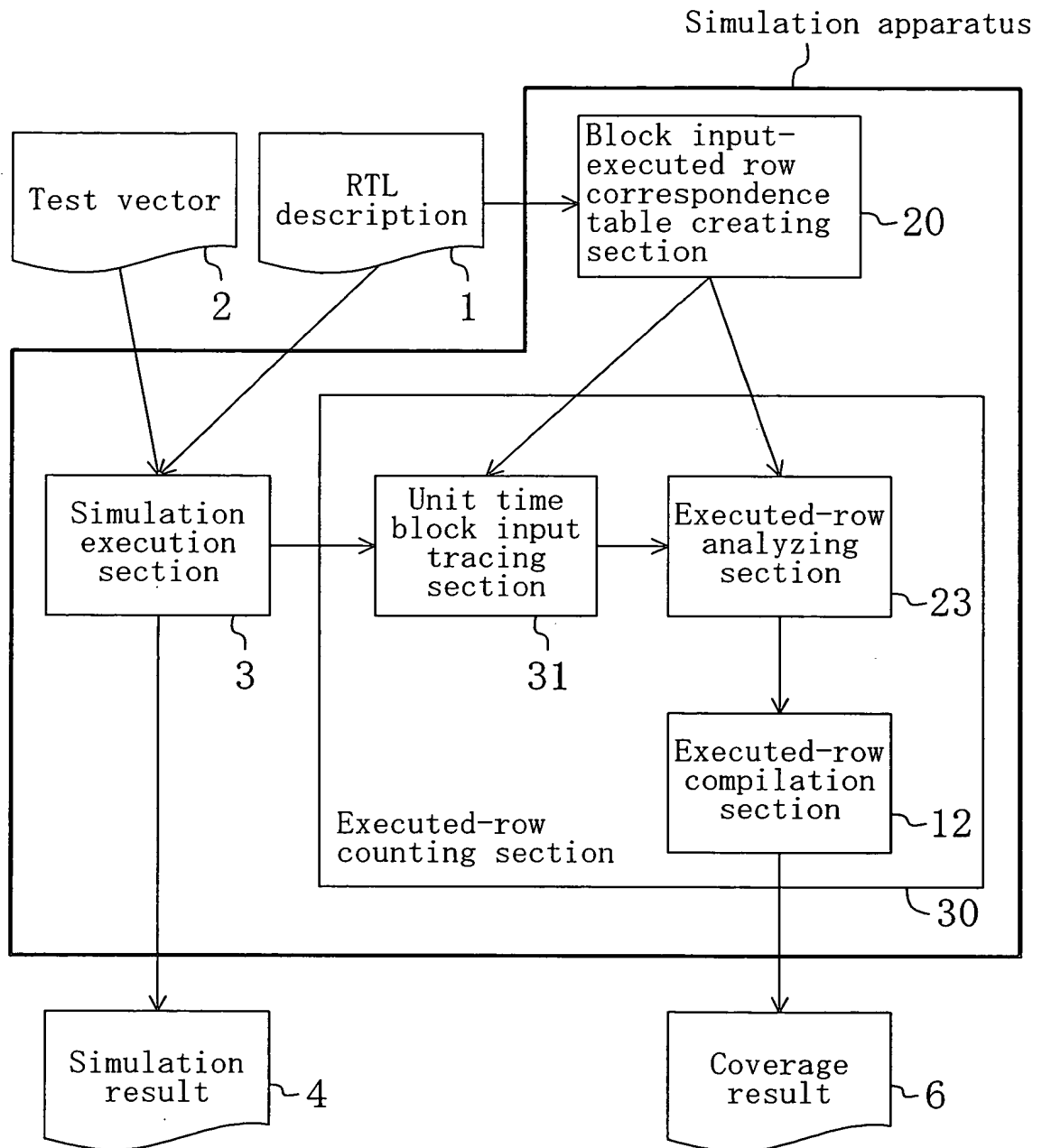


FIG. 10

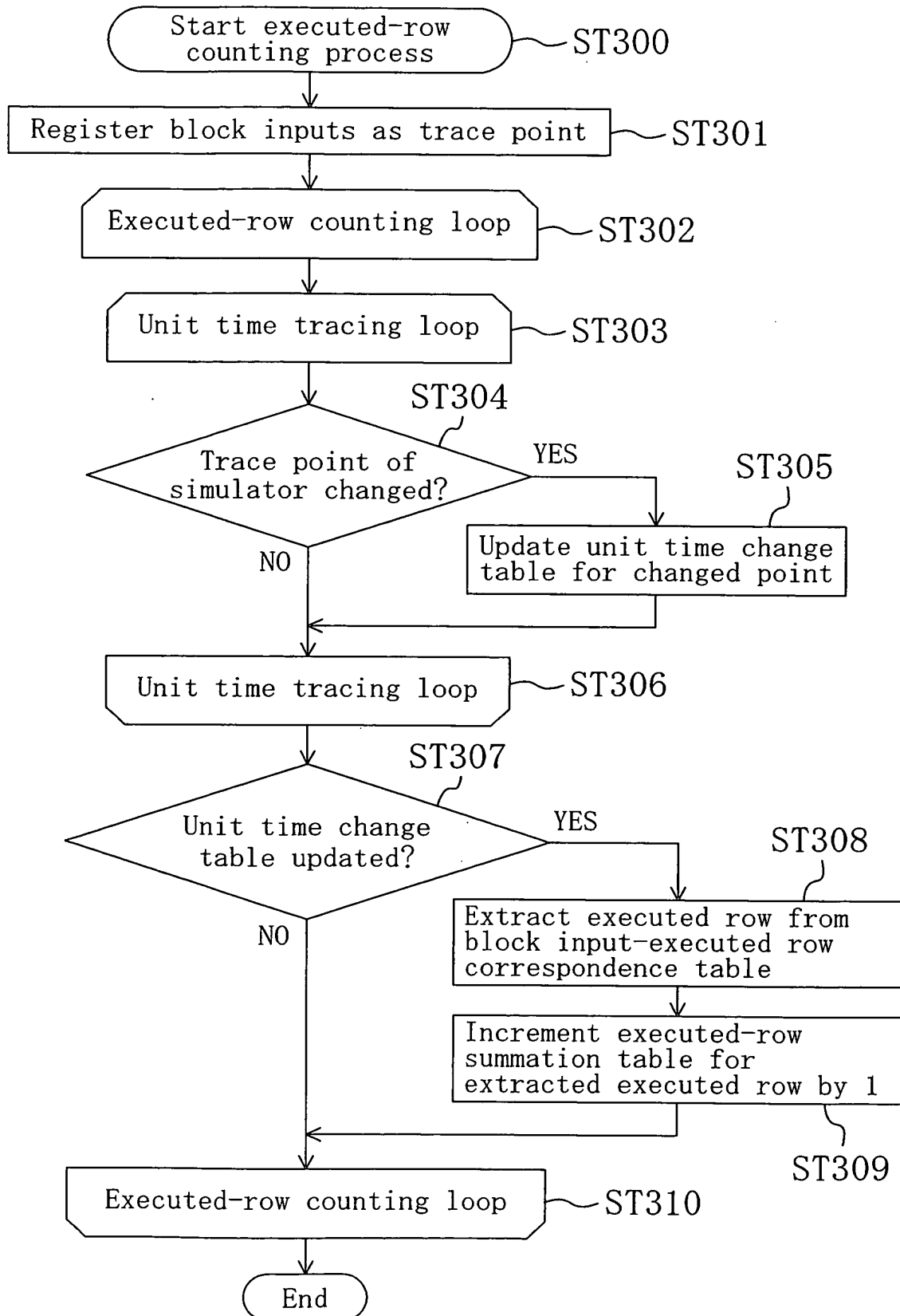


FIG. 11

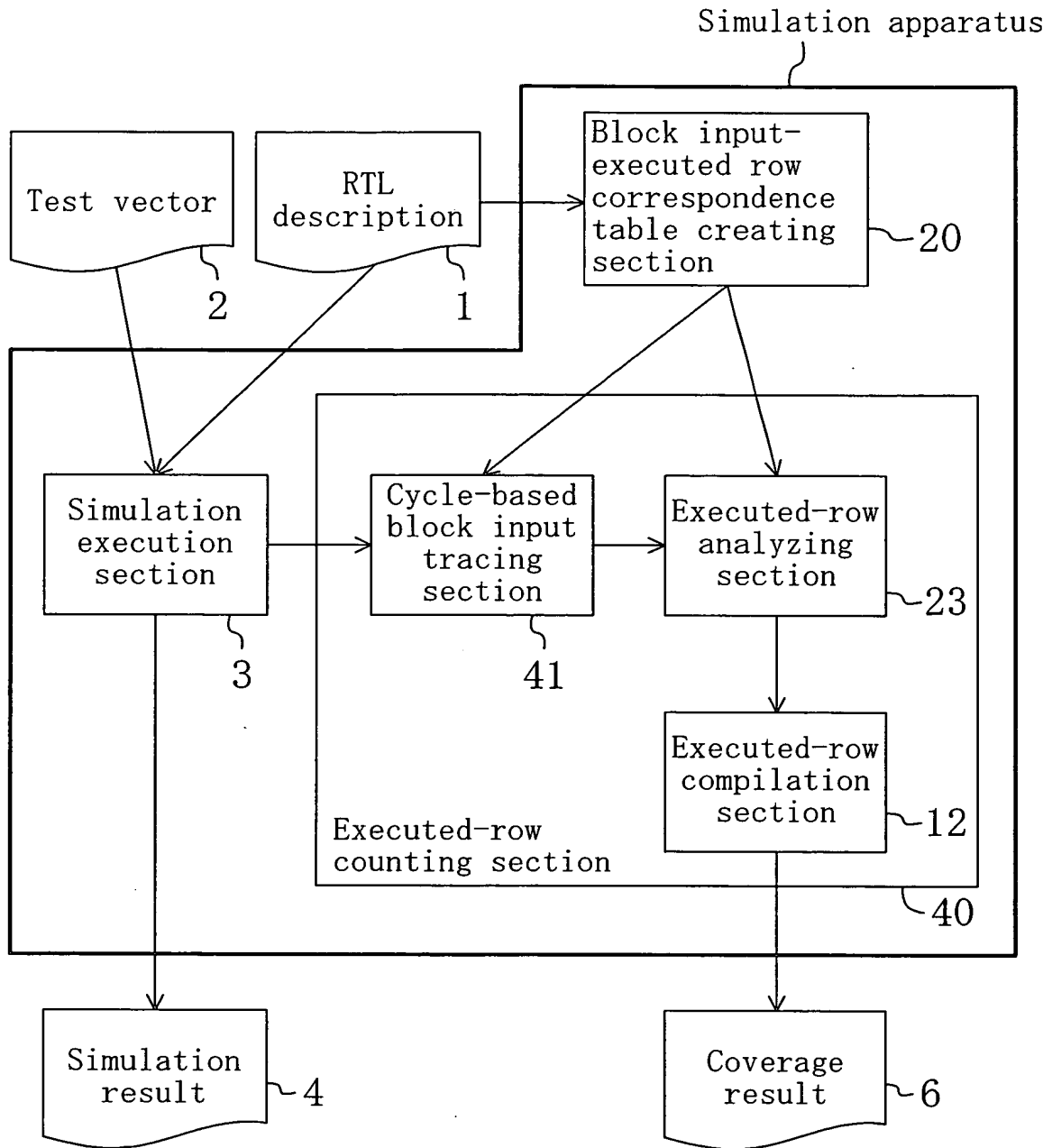


FIG. 12

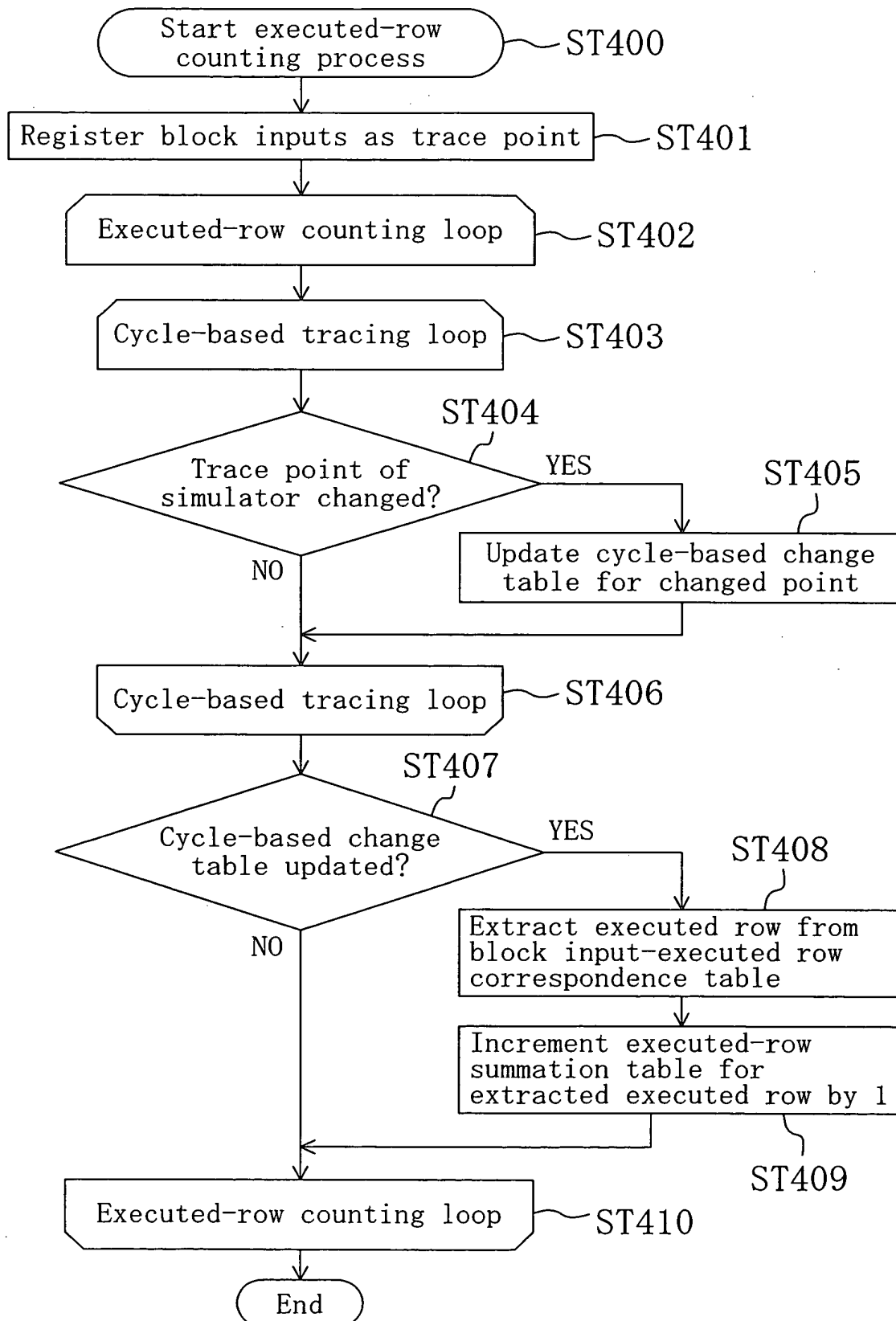


FIG. 13

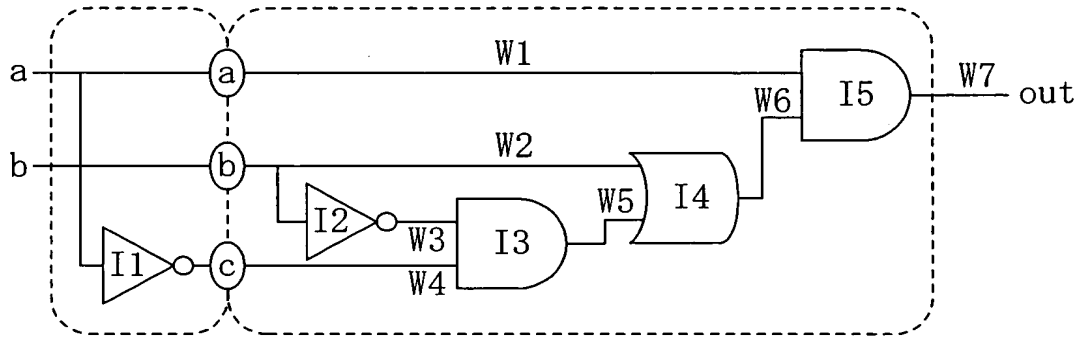


FIG. 14

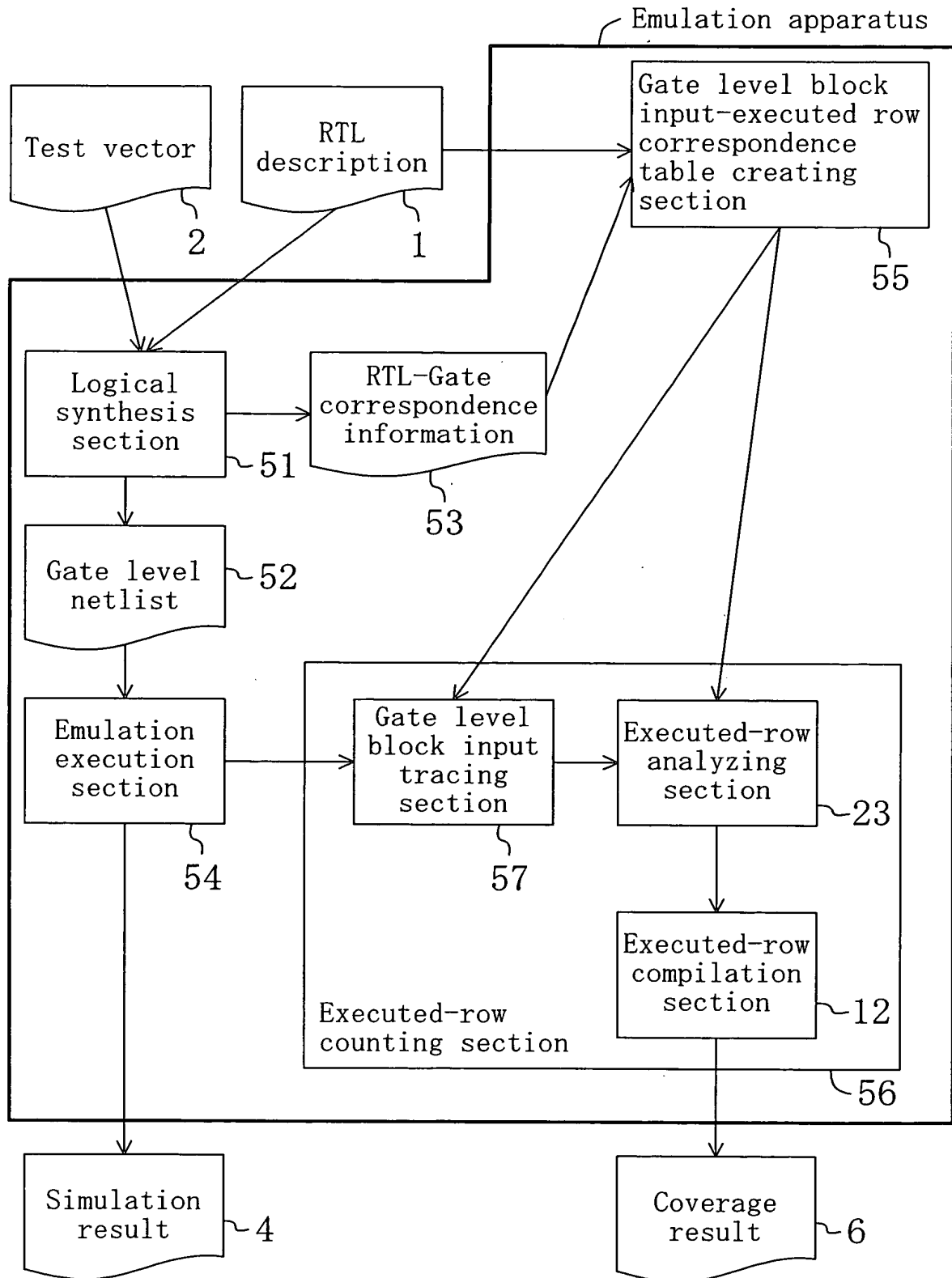


FIG. 15

RTL	Gate
a	W1
b	W2
c	W4
out	W7

FIG. 16

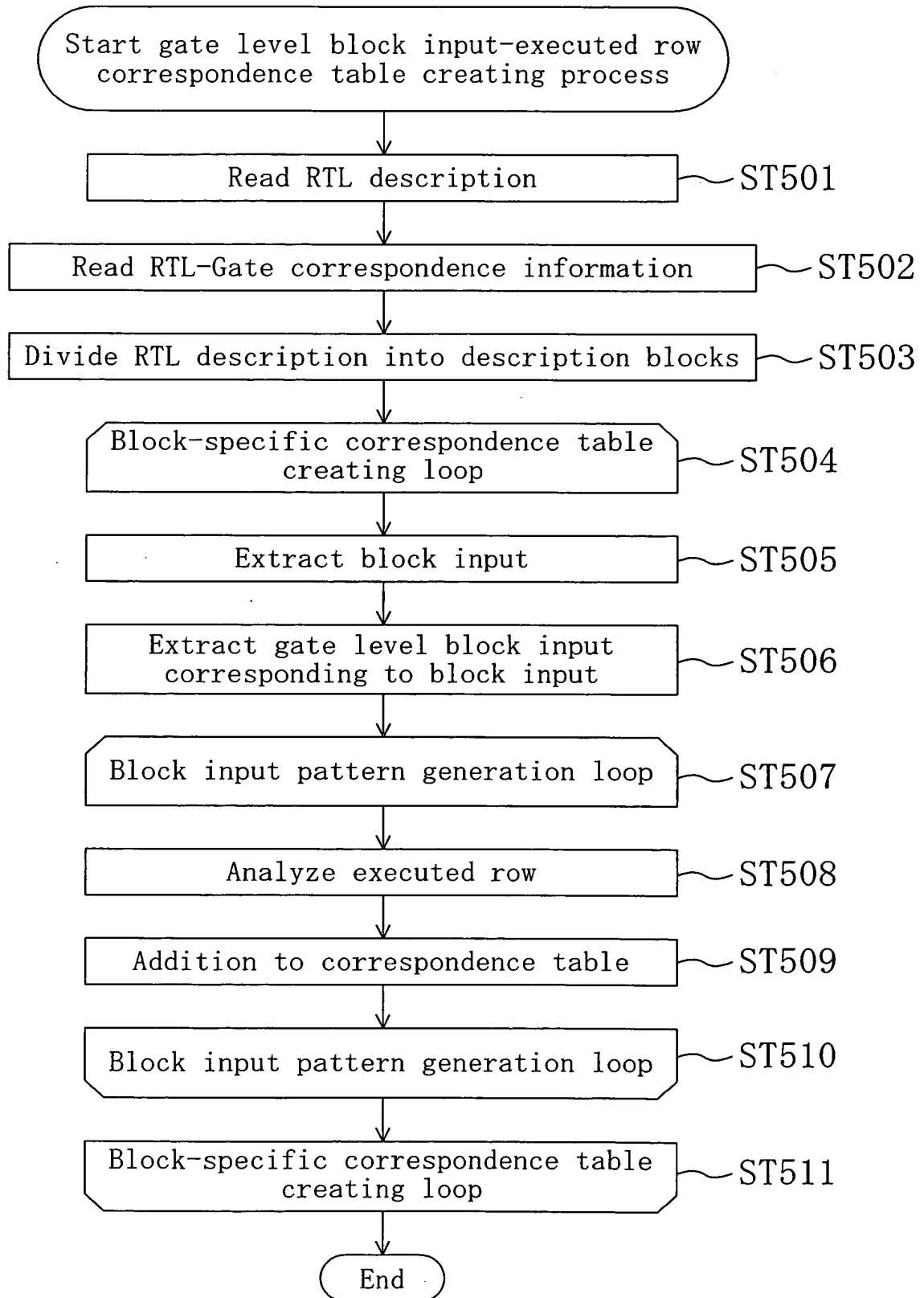


FIG. 17

Description block of 100th to 110th rows			
W1	W2	W4	Executed rows
0	0	0	100, 101, 102
0	0	1	100, 101, 103
0	1	0	100, 101, 104
0	1	1	100, 101, 105
1	0	0	100, 101, 106
1	0	1	100, 101, 107
1	1	0	100, 101, 108
1	1	1	100, 101, 109

Description block of 113th to 115th rows	
W4	Executed rows
0	113, 114
1	113, 114

FIG. 18

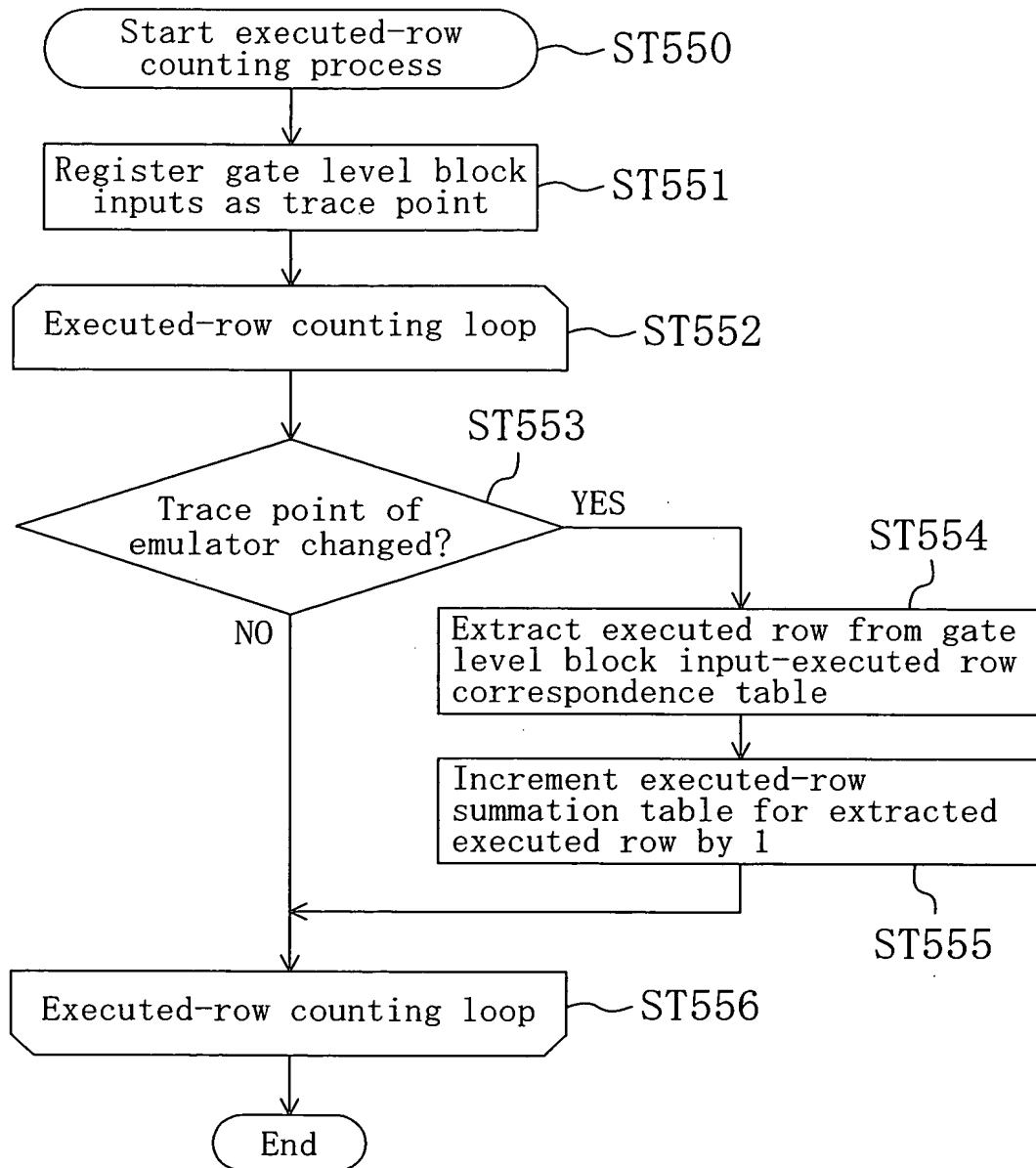


FIG. 19

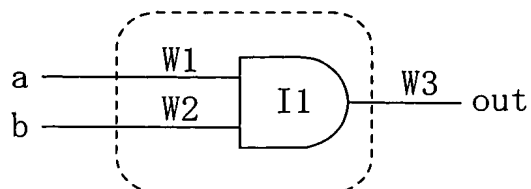


FIG. 20

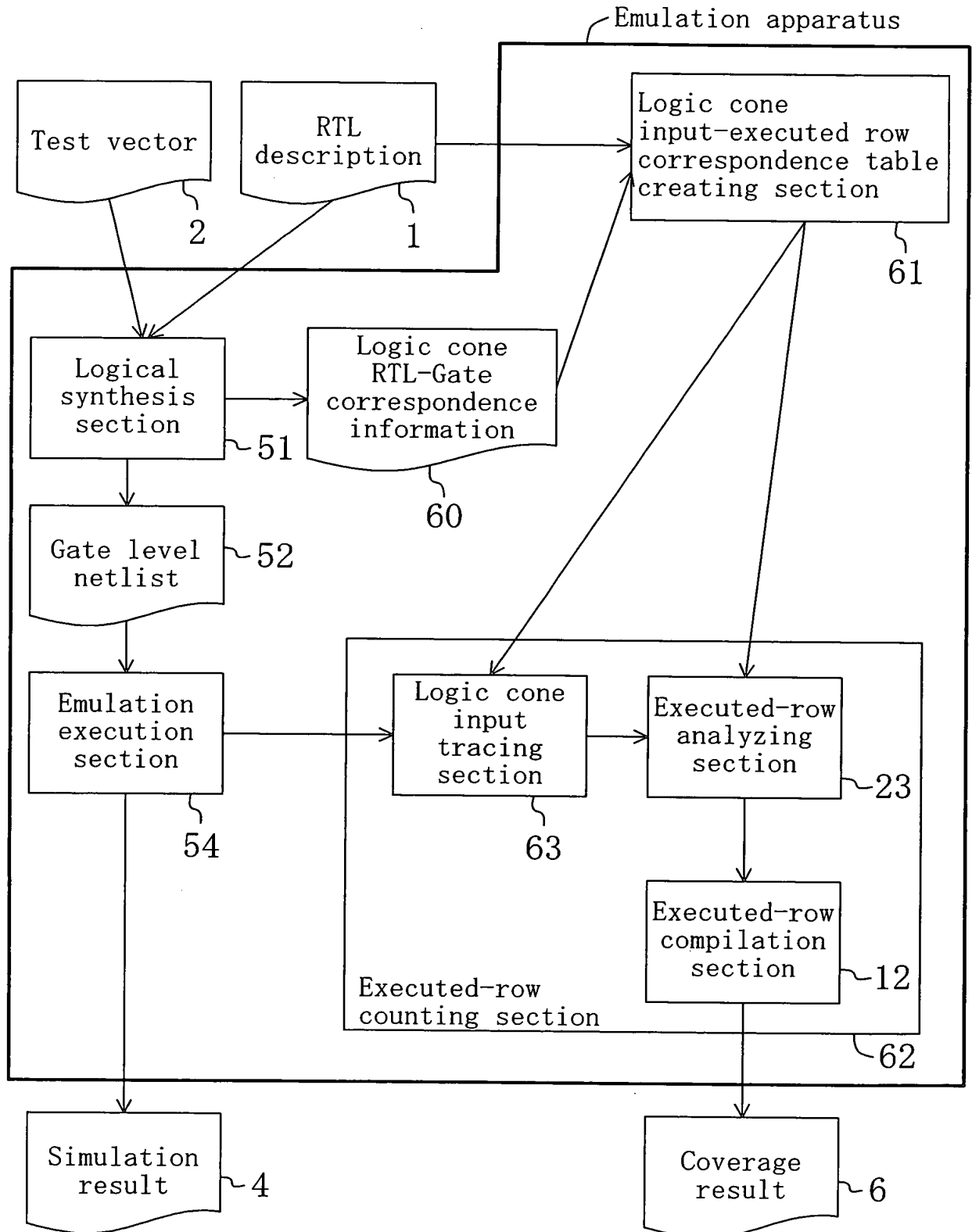


FIG. 21

RTL	Gate
a	W1
b	W2

FIG. 22

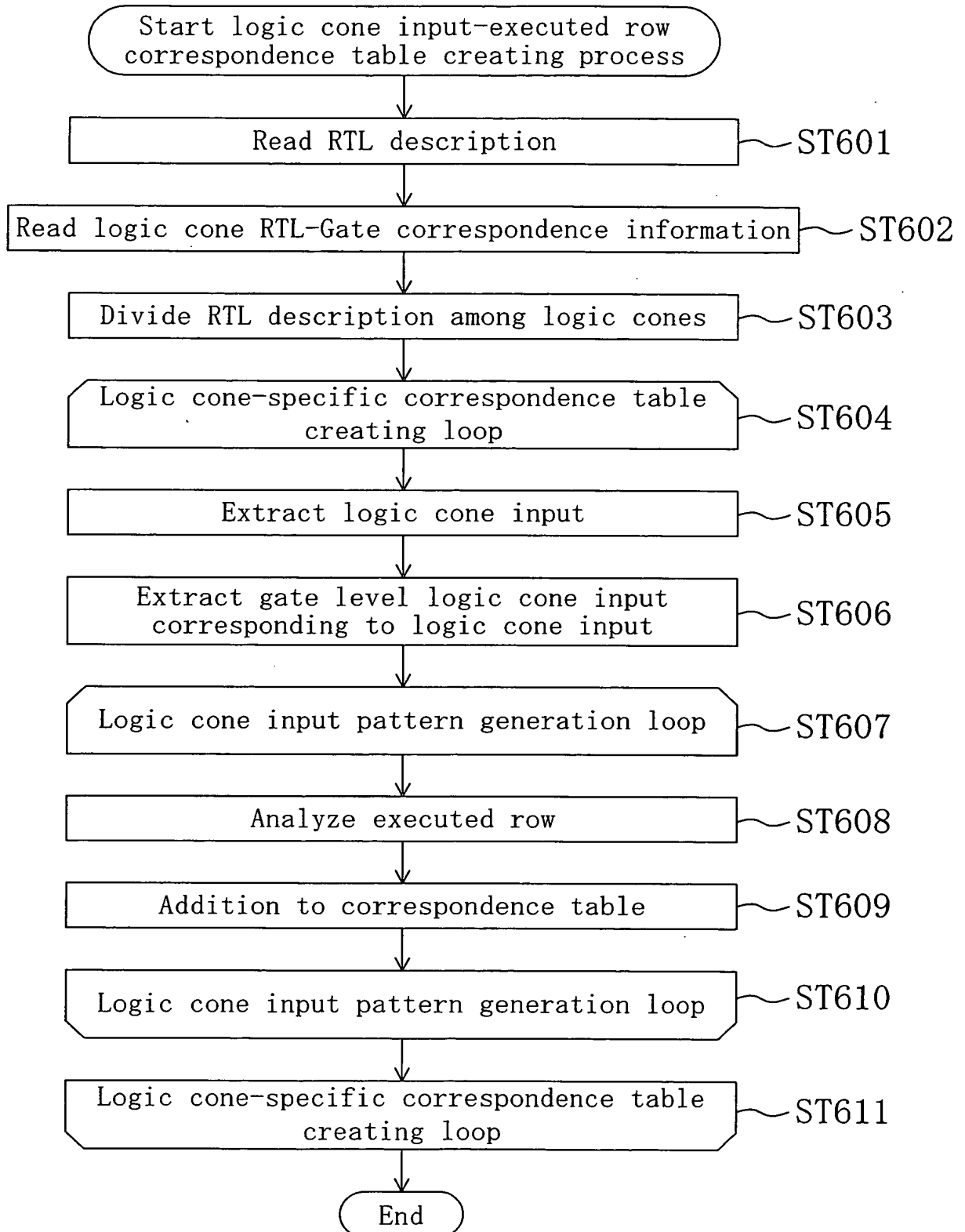


FIG. 23

W1	W2	Executed row
0	0	100, 101, 103, 113, 114
0	1	100, 101, 104, 113, 114
1	0	100, 101, 106, 113, 114
1	1	100, 101, 108, 113, 114

FIG. 24

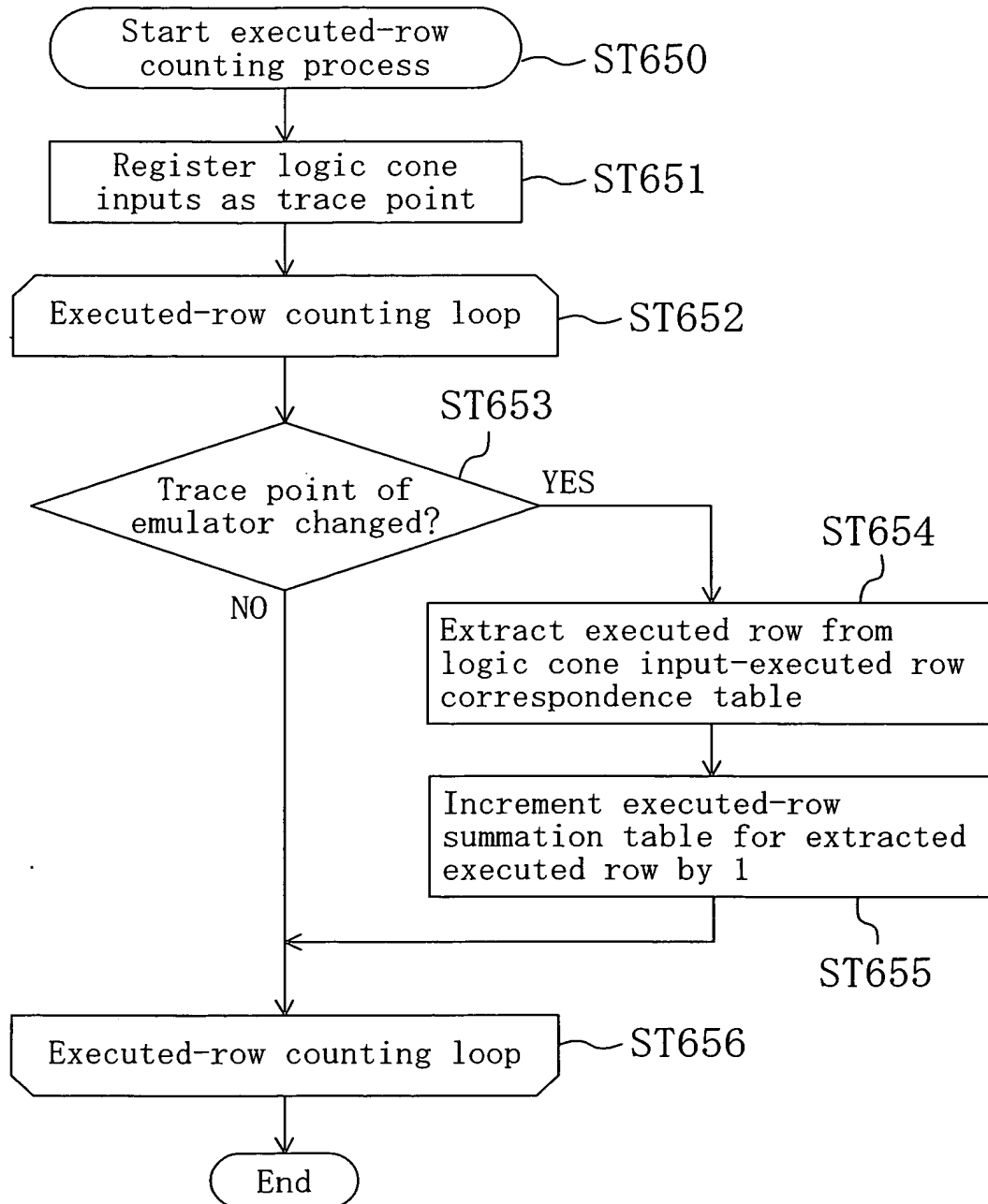


FIG. 25

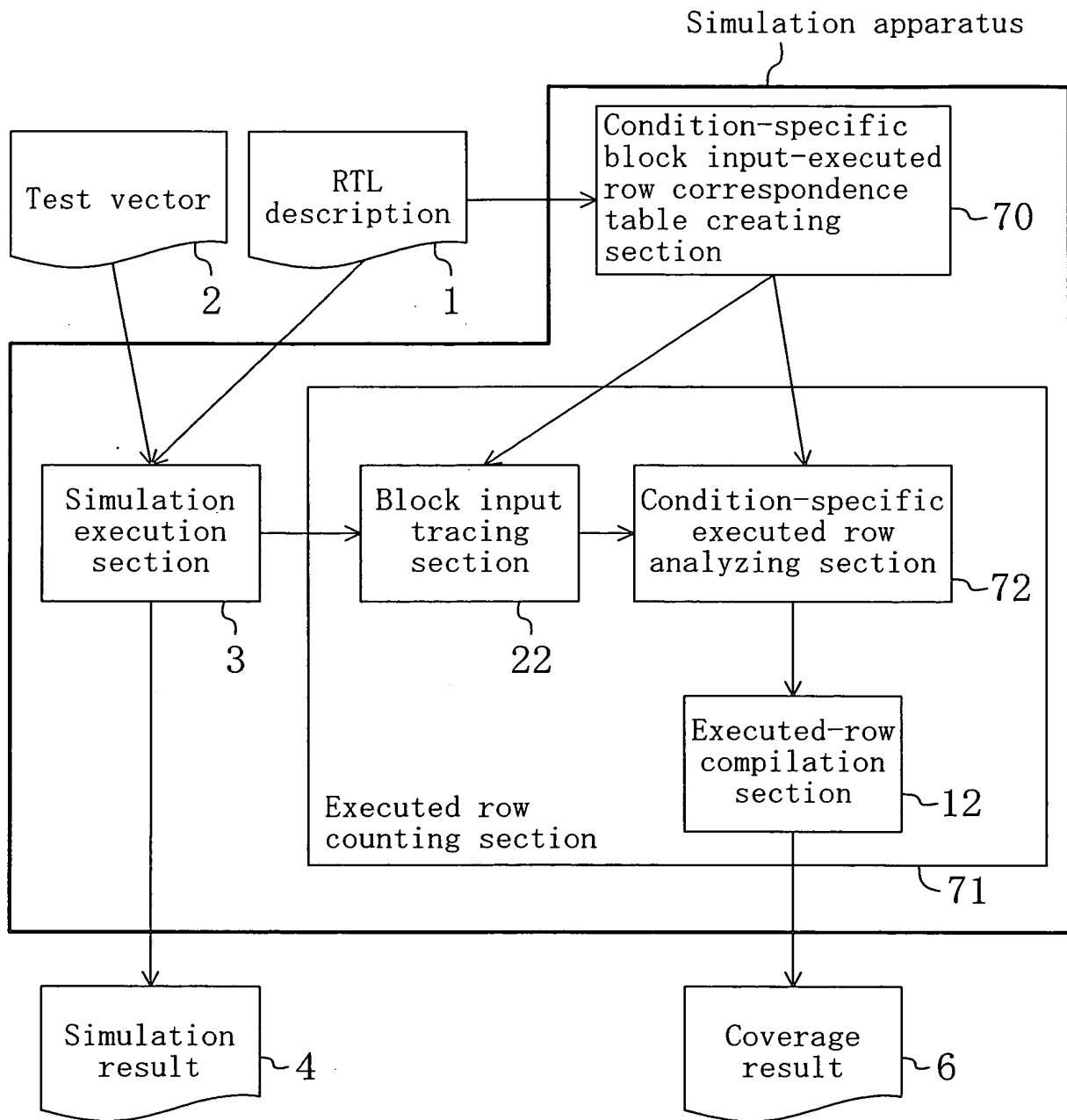


FIG. 26

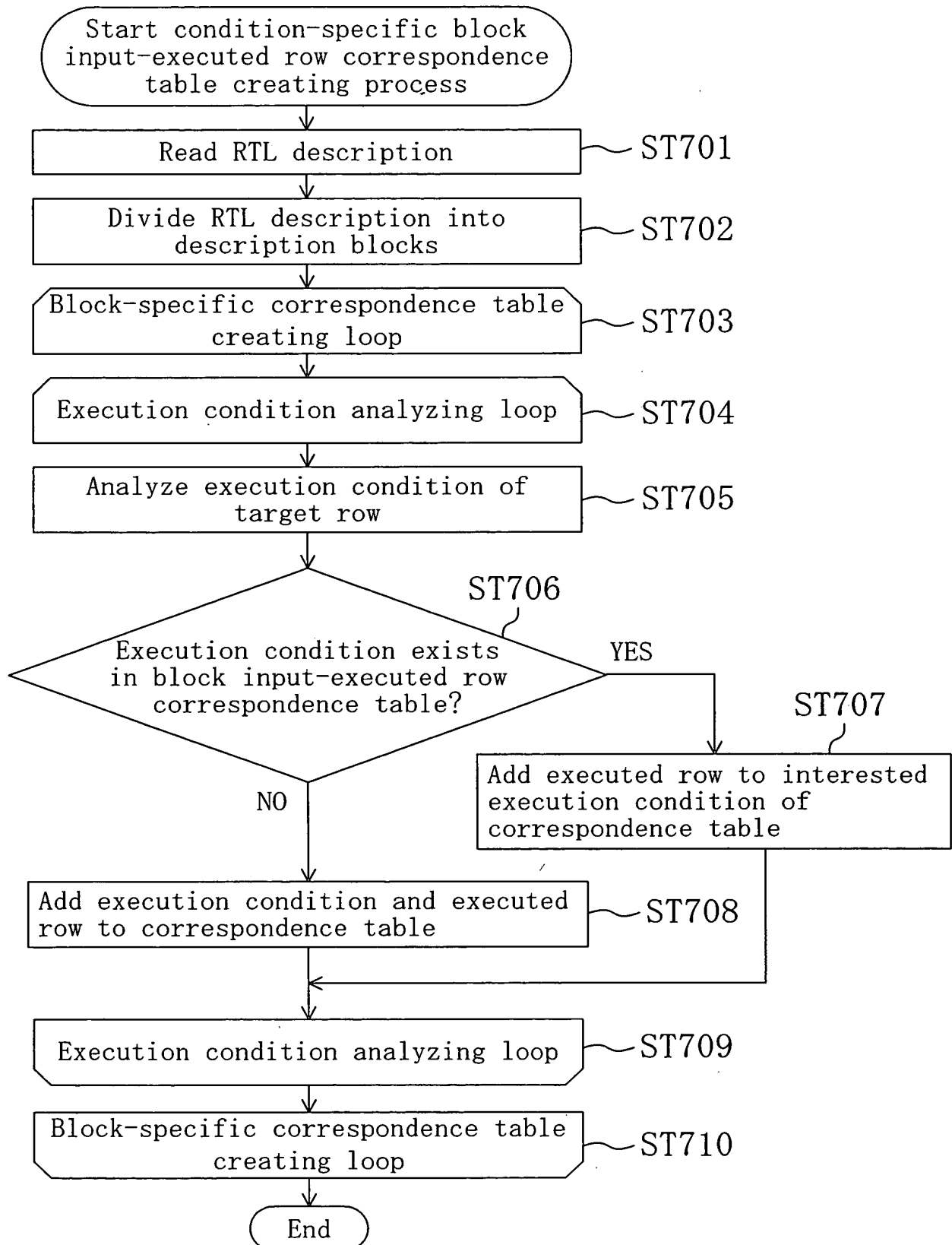


FIG. 27

1
}

```

300:    always @ (data or c) begin
301:        if(data==3) out=1;
302:        else if(data==2 && c==1) out=1;
303:        else out=0;
304:    end
305:
306:    always @ (data) begin
307:        c=~data[1];
308:    end

```

FIG. 28

Description block of 300th to 304th rows	
Input conditions	Executed rows
data=3	300, 301
!(data=3)&(data=2)&(c=1)	300, 302
!(data=3)&!(data=2)&!(c=1)	300, 303

Description block of 306th to 308th rows	
Input conditions	Executed rows
ALL	306, 307

FIG. 29

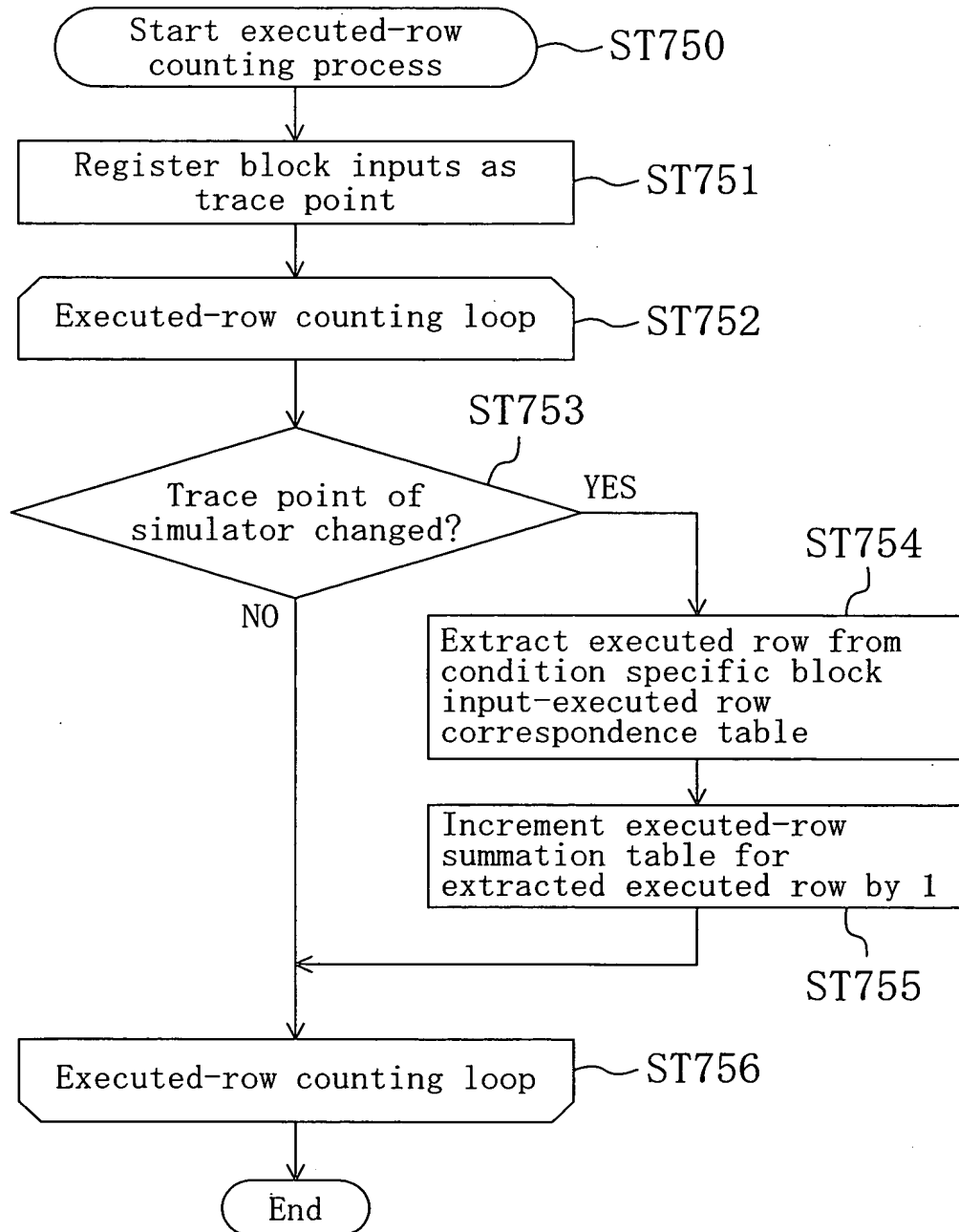


FIG. 30

2
}

```

400:    initial begin
401:        #0      data=0;
402:        #100    data=2;
403:    end
  
```

FIG. 31

6
}

```

Number of
times of
execution
    4    300:    always @ (data or c) begin
          301:        if(data==3) out=1;
    1    302:        else if(data==2 && c==1) out=1;
    3    303:        else out=0;
          304:    end
          305:
    2    306:    always @ (data) begin
    2    307:        c=~data[1];
          308:    end
  
```

FIG. 32

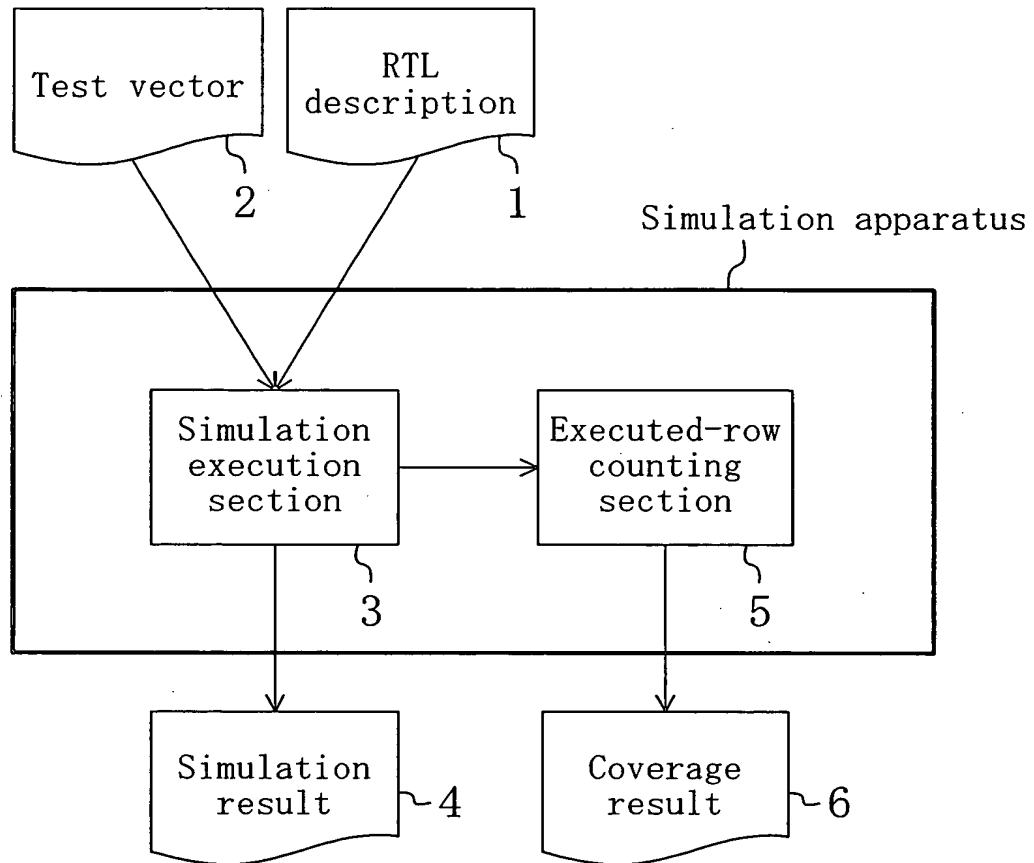


FIG. 33

Number of
times of
execution

```
4    100:    always @ (a or b or c) begin
4    101:                case({a, b, c})
        102:                    3' b000:out=0;
1    103:                    3' b001:out=0;
        104:                    3' b010:out=0;
        105:                    3' b011:out=0;
1    106:                    3' b100:out=0;
1    107:                    3' b101:out=1;
        108:                    3' b110:out=1;
        109:                    3' b111:out=1;
        110:                endcase
        111:    end
        112:
2    113:    always @ (a) begin
2    114:                c=~a;
        115:    end
```